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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,515	03/18/2004	David J. Moenssen	10541-1934	5398
29074	7590	05/05/2005	EXAMINER	
VISTEON C/O BRINKS HOFER GILSON & LIONE PO BOX 10395 CHICAGO, IL 60610			KAMEN, NOAH P	
			ART UNIT	PAPER NUMBER
			3747	

DATE MAILED: 05/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/803,515

Applicant(s)

MOENSSEN ET AL.

Examiner

Noah Kamen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/18/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claims 8 and 19 are objected to for lacking antecedent basis for "elongated slot" and "the tin layer of polymer material"/"the aperture", respectively.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 6, 9, 10, and 12, -15 are rejected under 35 U.S.C. 102(b) as being anticipated by Maeda et al (5806480).

1. An air induction system for inducing air into an engine of an automobile, the system comprising (figure 6):

a duct (near 8) in fluid communication with the engine of the automobile for directing inducted intake air into the engine; and

a compliant member (3,7) connected to the duct, wherein the duct is made of a first material (col.2, lines 1-7) and the compliant member is made of a second material (col.3, line 28) that flexes as a result of an internal pressure fluctuation during air induction into the engine.

5. The air induction system of claim 1 wherein a compliant member is

located at a portion of an air inlet tube of the air induction

system that allows for dissipation of one or more acoustic standing waves which will inherently be met at some frequency because the position of the standing wave is a function of frequency which is a function of engine speed, which varies commonly from 1000 to 5000 rpm.

6.The air induction system of claim 1 wherein the first material is a polymer (col.3, line 28).

9. The air induction system of claim 1 wherein the compliant member is

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disposed on a resonator (4) of the air induction system.

10. The air induction system of claim 1 wherein the compliant member is disposed on a quarter wave tuner of the air induction system-see the explanation of claim 5.

12. A method for reducing noise generated in an air induction system, the method comprising: determining a length of an air duct; determining a location along the duct where a maximum pressure of an acoustic standing wave is present, forming a flexible portion (3, 5, 6, 7) into a portion of the duct (1); and positioning the flexible portion at the location of the maximum pressure of the acoustic standing wave-see the explanation of claim 5.

13. The method of claim 12, further comprising forming the duct out of a first material-see claim 1.

14. The method of claim 12, further comprising forming the flexible portion out of a second material-see claim 1.

15. The method of claim 14, wherein forming the flexible portion out of a second material further comprises over-molding the second material over the duct (5,6).

Claims 1, 2, 5, 12-14, 16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 57-2412.

1 . An air induction system (fig. 6-see last sentence of abstract) for inducing air into an engine (23) of an automobile, the system comprising:
a duct (12,19) in fluid communication with the engine of the automobile for directing inducted intake air into the engine; and
a compliant member (14) connected to the duct, wherein the duct is made of a first material and the compliant member is made of a second material that flexes as a

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result of an internal pressure fluctuation during air induction into the engine. The materials are deemed to be different by their different properties

2.The air induction system of claim 1

wherein the compliant member further comprises an aperture (deemed to be the very opening that the member 14 covers) disposed along a length of the duct covered with the second material.

5.The air induction system of claim 1 wherein a compliant member is

located at a portion of an air inlet tube of the air induction

system that allows for dissipation of one or more acoustic standing waves-(see explanation re claim 5 under Maeda et al).

12. A method for reducing noise generated in an air induction system, the

method comprising: determining a length of an air duct;

determining a location along the duct where a maximum pressure of an acoustic standing wave is present,

forming a flexible portion into a portion of the duct; and

positioning the flexible portion at the location of the maximum pressure of the acoustic standing wave (see explanation re claim 5 under Maeda et al).

13. The method of claim 12, further comprising forming the duct out of a first material.

14. The method of claim 12, further comprising forming the flexible portion

out of a second material-the second material is deemed to be different because it must flex, unlike the rest of the duct.

16. The method of claim 12, wherein forming a flexible portion further

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comprises forming an aperture in the portion of the duct-that aperture broadly deemed to be the very opening that element 14 covers.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 4, 6, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 572412 as applied to claims 1, 2, and 16 above, and further in view of Donald et al (2003/0144418 A1).

Claims 3, 4, 6, 17, and 18 are all directed to using polymers for the duct and compliant member, with olefin/polypropylene blend in particular. JP'412 does not disclose the use of polymers (at least in the English abstract). Donald et al discloses (see paragraph 0057) various polymers including olefin/polypropylene blend and that can be successfully used (paragraph 0202) in automobile articles and interior components, vibration dampers, sound deadeners, etc. It would have been obvious to one of ordinary skill in the art to use the materials of Donald et al in JP'412.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 57-2412 as applied to claim 1 above, and further in view of Sadr et al (5913285).

Sadr et al. disclose (figures 5,9) combining an air filter housing (28) with a resonator (14) so as to achieve compactness; therefor, it would have been obvious to one of ordinary skill in the art to locate the resonator of JP'412 in an air housing as taught by Sadr et al. The resulting structure would then place the compliant member additionally in the air filter housing.

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Claims 1-3, 5-8, 10, 12-17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 6-219144 in view of Fujihara et al (6533953).

JP'144 shows a thermoplastic compliant member 3 covering/overmolding a slot in duct 2 (of a different material as evidenced by the lack of cross-hatching). However, the thickness of the compliant member is not set forth, and while the abstract discloses the low noise duct as being useful in a motor car, the precise use in a intake system is not set forth. Fujihara et al discloses using an elastic body (col.3, lines 12-15) in a portion of an intake system because there are standing waves (figure 3). It would have been obvious to apply the low noise duct of JP'144 in an engine intake system as suggest by Fujihara et al. The thickness of the compliant member is deemed a matter of engineering design depending on the material and the frequencies it is to damp. The compliant member is deemed to be at one standing wave because of its length and the broad range of frequencies it will encounter insofar as the frequencies are a function of engine rpm, which in turn vary generally from 1000 to 5000 rpm.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The unapplied art is cited of the interest to show sound dampening duct and should be carefully considered when amending the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Noah Kamen whose telephone number is 571 272 4845. The examiner can normally be reached on M-Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Henry Yuen can be reached on 571 272 4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Noah Kamen
Primary Examiner
Art Unit 3747

nk